

18(4)

AUTHOR:

Krivusha, Yu. V.

SOV/163-59-2-38/48

TITLE:

On the Consolidation of the Alloys Al-Zn (Ob uprochnenii  
aplavov Al-Zn)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Metallurgiya. 1959,  
Nr 2, pp 212-216 (USSR)

ABSTRACT:

The strength of the alloys Al-Zn in the concentration interval of 0 - 9 gram-atomic percentage Zn was investigated. The strength, the parameters of the crystalline lattice, and the relative intensity of the interference maximum were investigated. The chemical composition of the alloys is given in the table. The influence of the cold plastic deformation on the hardness of the alloys Al-Zn was investigated and the results are given in table 1. The influence of the content on the hardness of the annealed alloys deformed at 90° was investigated and the results are given in figure 2. The influence of the zinc concentration on the parameter of the crystal lattice in the alloys is given in figure 3. The increase of the strength by the rise of the zinc content in the solid solution is caused by the occurrence of static distortions in the alloys and the formation of new phases.

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On the Consolidation of the Alloys Al-Zn

SOV/163-59-2-38/49

The strength of the aluminum alloys with 9.4 gram-atomic percentage zinc which were deformed up to 90% is due to the formation of the new phases and a distortion of the third type. There are 5 figures, 1 table, and 5 Soviet references.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet  
(Dnepropetrovsk State University)

SUBMITTED: March 1, 1958

Card 2/2

KRIVUSHA, Yu.V.

Hardening and softening of some ternary aluminum alloys. Izv.vys.  
ucheb.zav.; fiz. no.2:154-156 '60. (MIRA 13:8)

1. Dnepropetrovskiy institut inzhenerov zheleznodorozhnogo transporta.  
(Aluminum alloys)

S/139/62/000/006/009/032  
E021/E151

AUTHOR: Krivusha, Yu.V.

TITLE: The softening of deformed Al-Zn alloys

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, no.6,  
1962, 52-56

TEXT: Aluminium alloys containing 0-9 at.% Zn, 0.07 at.% Fe and 0.12 at.% Si were melted in a graphite crucible and cast in an iron mould. The billets were forged into bars, heated at 320 °C for one hour and cooled quickly. All the alloys were solid solutions of zinc in aluminium. The alloys were then cold-worked with 88-90% reduction. The hardness was measured and the relative spectral intensities were determined from X-ray powder photographs. The alloys were then heated at 100, 150, 200, 250, 300, 350 and 400 °C for 30 minutes and the measurements repeated. In alloys containing up to 2% Zn the heat treatment at 100 °C had no effect on hardness. At 150 °C the hardness decreased somewhat, and at 200-300 °C there was a greater decrease. In alloys containing 3-9% Zn, a slight decrease in hardness occurred even at 100 °C. In alloys containing up to 2% Zn the relative spectral intensities

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The softening of deformed Al-Zn alloys

S/139/62/000/006/009/032  
E021/E151

after heating at 100-250 °C changed insignificantly; only after heating at 300 °C did they fall sharply. The character of the changes indicated that distortion due to plastic deformation was removed by heating at 300 °C. In alloys containing 3-9% Zn,  $\gamma$  phase was present after deformation. The lines corresponding to this phase disappeared at 150 °C for the 3% Zn alloy, at 200 °C for alloys containing 3.7-6% Zn, and at 300 °C for the 9% Zn alloy. The relative spectral intensities for deformed alloys containing 3.7-6% Zn were much lower than expected and approximately the same as undeformed samples containing 0-1.5% Zn, indicating that the quantity of zinc atoms in the  $\alpha$  solid solution in these deformed alloys was very small. The crystal lattice constants of alloys containing 3-9% Zn were measured. No change in constants for the 3% Zn alloy was observed either after deformation or after heating. An increase in constants after deformation was noted only in the alloy containing 9% Zn. The constants of the alloy containing 4-9% Zn changed sharply on heating at 100 °C. After this, with further increase in temperature the lattice constants gradually returned to the initial value.

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The softening of deformed Al-Zn alloys S/139/62/000/006/009/032  
E021/E151

There are 3 figures and 3 tables.

ASSOCIATION: Dnepropetrovskiy institut inzhenerov  
zheleznodorozhnogo transporta  
(Dnepropetrovsk Institute of Railway Transport  
Engineers)

SUBMITTED: July 11, 1961

Card 3/3

S/139/63/000/001/015/027  
S202/E592

AUTHORS: Belousov N.N., Varich, N.I., Krivusha Yu.V. and  
Shcherbakov G.I.

TITLE: Certain structural characteristics and properties of  
alloys crystallized under piston pressure

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,  
no.1, 1963, 92-95

TEXT: The effect of piston pressure on the hardness,  
lattice parameter and size of the mosaic blocks in the alloys  
AL8U (AL8U) (11.1% Mg, 0.1% Be and 0.15% Ti and Zr), AL2 (AL2)  
(9.8% Si and 0.17% Fe), AL9 (7.0% Si, 0.2% Mg and 0.12% Fe), and  
AL4 (9.3% Si, 0.32% Mg, 0.25% Mn and 0.15% Fe) is discussed.  
The alloys were crystallized under atmospheric pressure and under  
piston pressure; the last three ranging from 300 to 6000 kg/cm<sup>2</sup>,  
and the first one in the pressure range of 1650-9425 kg/cm<sup>2</sup>.  
Samples were cut out from the ingots radially and the Vickers  
hardness measured on a sclerometer type 101 (TP). The X-ray  
lattice determination was carried out in a camera type KROS-1  
(KROS-1) using copper radiation. The dimensions of the mosaic

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Certain structural characteristics ... S/139/63/000/001/015/027  
2202/E592

blocks were determined from primary extinction and the intensity of the interference maxima was determined photographically. The dimensions of the blocks were calculated according to G.M.Vorob'yev's method (Izv. AN SSSR, ser.fiz., 23, no.5, 1959) The hardness and lattice parameter were determined also for the transitional zone. In the case of AL3U, the hardness did not change along the edges of the ingot while it increased considerably in the center. With pressures in excess of 3000 kg/cm<sup>2</sup> the growth of hardness ceased. The experimental data showed that crystallization under piston pressure reduced the dimensions of the coherent scattering regions. Blocks were subdivided most strongly at pressures up to 2500-3000 kg/cm<sup>2</sup> - further increase of pressure did not affect their dimensions. The increase of pressure reduced the lattice parameter particularly in the center and in the transitional zone, which was ascribed to decrease of the magnesium content in the  $\alpha$ -solid solution. The increase of hardness in the center of the ingot was accompanied by subdivision of the mosaic blocks. However, subdivision of the blocks at the edges of the ingot did not affect the hardness. This was due to the effect of the distribution and dimensions of the  $\beta$ -phase particles. In the remaining three alloys

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Certain structural characteristics ... S/139/63/000/001/015/027  
E202/E592

the hardness increased continuously with increasing pressure, with the exception of AL9, where the increase ceased in the pressure range of 500-1500 kg/cm<sup>2</sup>. The dimensions of the blocks within the pressure range of 300-2000 kg/cm<sup>2</sup> substantially decreased. It was not possible to observe the behavior of the former at higher pressures since blocks smaller than 10<sup>-4</sup> cm had no effect on the intensity of the X-ray interference. In AL2, AL9 and AL4 the lattice parameter increased at the low pressure of ~300 kg/cm<sup>2</sup> and then rapidly decreased at 1000 kg/cm<sup>2</sup>. Higher pressures caused slight increase but in the region of 3000-6000 kg/cm<sup>2</sup> there was no change in their parameter and its value was substantially the same as for pure aluminium. These phenomena were explained by the general reduction of solubility in solid solutions during increased pressures. There are 5 figures and 2 tables.

ASSOCIATION: Dnepropetrovskiy gosuniversitet imeni 300-letiya  
vossoyedineniya Ukrainy s Rossiyei  
(Dnepropetrovsk State University imeni 300-years  
anniversary of union between the Ukraine and Russia)

SUBMITTED: October 30, 1961  
Card 3/3

VARICH, N.I.; KRIVUSHA, Yu.V.; LEVINA, R.V.; KOVALENKO, N.D.

Effect of lubricants on the texture of rolled metal. Izv. vys.  
ucheb. zav.; chern. met. 6 no.5:151-155 '63. (MIRA 16:7)

1. Dnepropetrovskiy gosudarstvennyy universitet.  
(Rolling (Metalwork)) (Metalworking lubricants)

YEFREMOV, A., general-mayor tankovykh voyak; KRIVUSHIN, V., polkovnik

Fortieth anniversary of the Saratov School. Tankist no.7:24  
J1 '58. (MIRA 11:10)

(Saratov--Tank warfare)

SHEVELEV, V.A., KRIVUT, B.A.; KISFLEVA, Ye.Ya.

Analysis of pharmaceutical preparations by the capillary  
fluorescence method. Apt. delo 14 no.5:56-60 S-O '65.

(MIRA 18:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut lekarstvennykh  
i aromaticeskikh rasteniy, Bittsa, Moskovskoy oblasti.

KRIVUTSA, V. F. Cand Tech Sci -- (diss) "Study of the Process of  
the <sup>pulverization</sup> ~~XXXXXX~~ Comminution of Matchwood." Len, 1957. 11 pp 20 cm.  
(Min of Higher Education USSR, Len Order of Lenin Forestry  
Engineering ~~XXXX~~ Academy im S. M. Kirov), 100 copies (KL, 26-57,108)

- 55 -

DANILEVICH, Yu. [Danylovych, IU.]; SABLIN, V.; KRIVUTS, Yu. [Kryvuts, IU.]

Across our homeland. Znan. ta pratsia no.6:12 Je '61.  
(MIRA 16:8)

S/169/62/000/005/069/093  
D228/D307

AUTHORS: Benyukh, V. V., Gavlovskaya, A. A., Konopleva, V. P.,  
Krivutsa, Yu. N., Kruchinenko, V. G., Sandakova, Ye. V.,  
and Terent'yeva, A. K.

TITLE: Photographic observations of meteors at the observa-  
tory of Kiyevskiy universitet (Kiev University) in  
1957

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 5, 1962, 5, ab-  
stract 5G38 (Sh. rabot po Mezhdunar. geofiz. godu,  
Kiyevsk. un-t, no. 1, 1961, 3-15)

TEXT: The heights, the velocities, and the braking of meteors,  
and also the values of the meteor particle masses and the density  
of the earth's atmosphere in the meteorite zone are given. [Ab-  
stracter's note: Complete translation.] ✓

Card 1/1

ACCESSION NR: AT4034463

S/3091/63/000/002/0003/0010

AUTHOR: Benyukh, V. V.; Vil'chinskaya, S. P.; Dementko, A. A.; Krivutsa, Yu. N.; Sandakova, Ye. V.; Terent'yeva, A. K.; Sherbaum, L. M.

TITLE: Photographic observations of meteors in 1958 at the Kiyevskaya astronomicheskaya observatoriya (Kiev Astronomical Observatory)

SOURCE: Kiyev. Universitet. Sbornik rabot po Mezhdunarodnomu geofizicheskomu godu, no. 2, 1963, 3-10

TOPIC TAGS: astronomy, meteor, upper atmosphere, photographic meteor

ABSTRACT: In 1958<sup>2</sup> photographic observations of meteors were made at two base stations at Kiev University using an AS-11 meteor patrol with fixed cameras. The description of the patrol apparatus, coordinates of the observation stations and other general information on the observation method have been presented earlier (Sbornik statey po MGG Kiyevskogo universiteta, No. 1, 1960). The methods and formulas used in determination of various meteor parameters are reviewed briefly. The basic contribution of the paper is presentation of data obtained by processing of 21 base photographs of meteors. Table 1 gives general information concerning the 21 meteors - angular length of the meteor in degrees, the value of braking at the heights  $H_1$  and  $H_2$ , extra-atmospheric velocity, maximum absolute stellar magni-

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ACCESSION NR: AT4034463

tude reduced to the International visual system, heights of appearance and disappearance and other parameters. Table 2 gives information on each meteor at several points of the path. "The following persons participated in the processing of the published data: I. V. Kozhevnikova, L. M. Kozhevnikov, V. G. Kruchinenko, A. K. Suslov and Zh. M. Shcherban". Orig. art. has: 7 formulas and 2 tables.

ASSOCIATION: Kiyevskiy Universitet (Kiev University)

SUBMITTED: 00

DATE ACQ: 07May64

ENCL: 00

SUB CODE: AA

NO REF SOV: 003

OTHER: 001

Card 2/2

*Krivutsova*  
Czechoslovakia / Analytical Chemistry.  
Analysis of Inorganic Substances.

E-2

Abs Jour: Ref. Zhur - Khimiya No. 2, 1958, 4326

Author : Bardodey, Krivutsova, Kukachkova, Pikhia,  
Zdravil

Title : The Photometric Micro Determination of Hydrocy-  
anic Acid and Cyanides

Orig Pub: Ceskosl. hyg., 1957, 2, No. 4, 244-250

Abstract: A previously described method (Epstein, E.  
Analyst. Chem, 1947, 19, 272) has been modified.  
In the HCN determination 1 liter of the air to  
be passes through 2 wash bottles containing 3  
ml. of 0.1N NaOH for about 10 minutes. The con-  
tents are washed and neutralized by the addition  
of 0.3 ml. of 2M Na H<sub>2</sub>PO<sub>4</sub>. To 2 ml. of the re-

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Czechoslovakia / Analytical Chemistry.

CIA-RDP86-00513R000826610016-1

Analysis of Inorganic Substances.

E-2

Abs Jour: Ref. Zhur - Khimiya No. 2, 1958, 4326

sulting solution is added 0.2 ml. of 1% solution  
of chloramine T and shook for 1 minute. To that,  
5 ml. of the pyridine-pyrazolone (PPR) reagent  
(1 vol. pyridine - 4 vol. of 1% of 1-phenyl-3-  
methyl-5-pyrazolone) is added, heated for 7  
minutes on a water bath at 70° C. and cooled.  
The extinction is measured in the photometer us-  
ing an S 61 light filter. The resulting red-  
violet coloration changing into blue with time  
is stable for 20 minutes. The detection minimum  
of HCN is 0.1%; the limit of dilution 1:10.  
Instead of PPR, pyridine-phloroglucinol (PFR)  
reagent (1 vol. of pyridine + 4 vol. of 1%  
phloroglucinol solution) can be used. In this  
case the readings are taken after a 7 minute

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----- / Analytical Chemistry.

Analysis of Inorganic Substances.

E-2

Abs Jour: Ref. Zhur - Khimiya No. 2, 1958, 4326

used as well. The resulting red-violet coloration is less intensive.

Card 4/4

KRIVY, Ivan

Effusion method with material spectrometric indication  
and its application in nuclear engineering. Jaderna  
energie 10 no. 2:54 F '64.

1. Ustav jaderného výzkumu, Československá akademie věd,  
Rez.

KRIVY, I.; KRTIL, J.

Examination of precipitation reactions of triheteropolyacids with heavy alkali metals. Coll Cz Chem 29 no. 3:587-596 Mr '64.

1. Nuclear Research Institute, Czechoslovak Academy of Sciences, Rez near Prague.

L 18523-66 EWT(m)/EPF(n)-2/ENP(t) LJP(c) ES/JD/MM/JG

ACC NR: AP6010222

SOURCE CODE: CZ/0038/65/000/004/0142/0142

AUTHOR: Jakes, Dusan; Krivy, Ivan

ORG: Institute of Nuclear Research, CSAV, Rez (Ustav jadernoho vyzkumu CSAV)

TITLE: Thermochemistry of some uranium compounds

SOURCE: Jaderna energie, no. 4, 1963, 112

TOPIC TAGS: thermochemistry, thermodynamics, x ray diffraction, uranium compound, nuclear fuel

ABSTRACT: INR Report No. 1050/1964, published in Jaderna Energie only as Czech and English summaries (modified): On the basis of the literature issued to the end of 1963, a review of the thermodynamic and X-ray diffraction data of uranium compounds important in nuclear fuel production is given in the article. [JPRS]

SUB CODE: 07, 20, 18 / SUM DATE: none

Card 1/1  
SC

UDC: 546.791

KRIVY, Jaroslav

Mucous membrane localization of pemphigus vulgaris in  
otorhinolaryngology and the problem of treatment. Cesk.  
otolar. 5 no.6:344-350 Dec 56.

1. Z Otolaryngolog. oddeleni KUNZ, Gottwaldov. Prednosta MUDr.  
J. Krivy.

(PEMPHIGUS

mucous membrane, oral, ther. (Cz))

(MOUTH, dis.

pemphigus of mucous membrane, ther. (Cz))

PAKHOMOVA, E.S.; KRIVYAKOVA, A.S.

Cadmium determination in the presence of copper by the method of  
polarographic curve derivatives. Zav.lab. 21 no.2:144-147 '55.  
(MLRA 8:6)

1. Vsesoyuznyy institut mineral'nogo syr'ya.  
(Cadmium) (Polarography)



B. P. KRIVYKH, E. P.

*Agricultural Research*

6397\* Soil With Following As Bacterial Fertilizer. (in  
Russian) E. P. Krivikh. Agrobiologia. May-June 1951, p. 114  
121  
Studies were made on the effect of following on the increase  
of microorganisms in soil and on increased growth of wheat  
in such soils. Data are discussed and tabulated.

KRIVYKH, F.P., kand. sel'skokhoz. nauk

Significance of crop rotations. Zemledelie 26 no.5:70-72  
My '64. (MIRA 17:6)

1. Irkutskiy sel'skokhozyaystvennyy institut.

Seeds

Soil fertility and seed germinability. Sel. 1 sem. 20, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress  
June 1953. UNCL.

KRIVYKH, F.P., kand.sel'skokhozyaystvennykh nauk

Farming problems and soil nutrition of plants. Zemledelie  
24 no.5:22-25 My '62. (MIRA 15:7)

1. Irkutskiy sel'skokhozyaystvennyy institut.  
(Irkutsk Province—Agriculture)

KRIVYKH, F.P., kand.sel'skikhkhozyaystvennykh nauk

Early fall plowing as a promising method of tillage in Eastern  
Siberia. Zemledelie 24 no.8:33-35 Ag '62. (MIRA 15:9)

1. Irkutskiy sel'skokhozyaystvennyy institut.  
(Irkutsk Province) (Plowing)

KRIVYKH, G., starshina, master vozhdeniya

Confidence comes on the course. Starsh.-serzh. no.8:18-19

Ag '62.

(MIRA 15:8)

(Tanks (Military science))

KRIVYY, M.I.

Five-position self-propelled welding machine. Stroi.truboprov. 9  
no.2:31-32 F '64. (MIRA 17:3)

1. Stroitel'nyy uchastok No.5 tresta Nefteprovodmontazh, Novosibirsk,

KRINCZYNSKI, L. Dr.

~~XXXXXXXXXX~~  
Five-year pharmaceutic education in Czechoslovakia. Farm.polska

11 no.7:169-170 July '55.

(PHARMACY, education,  
in Czech.)



SOLYMOSI, Frigyes; KRIX, Nora

Catalysis of solid-phased reactions; thermal decomposition of potassium-chlorate in presence of various metal-oxide catalysts. Magy kem folyoir 68 no.7:283-289 J1 '62.

1. Szegedi Tudományegyetem Szervetlen- és Analitikai-Kémiai Tanaszéke.

SOLYMOSI, Frigyes; KRUX, Nora

Catalysis of solid-phase reactions. Magyar kémiai folyóirat 68  
no.10:454-461 0 '62.

1. Szegedi Tudományegyetem Szervetlen- és Analitikai-Kémiai  
Intézete.

KRI'YANOVA, Z.V.

Italian petrochemical industry. Khim. i tekhn. topl. i masel. 6  
no.10:64-69 0 '61. (MIRA 14:11)  
(Italy—Petrochemicals)

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270000

S/177/61/000/002/001/005  
D234/D305

AUTHORS: Maslov, A.I., Lieutenant-Colonel, Medical Services,  
and Kriyankov, G.N., Captain, Medical Services

TITLE: Aerogenic immunization and reimmunization with live  
brucellous vaccine after ionizing radiation

PERIODICAL: Voenno-meditsinskiy zhurnal, no. 2, 1961, 27 - 31

TEXT: The study is intended to fill a gap in the literature. A.V. Pnomarev and I.A. Shabarov (1956, 1959) showed that irradiation 48 hours before revaccination with typhoid vaccine and tetanus anatoxin, caused almost complete depression of immunogenesis which is restored only after recovery from radiation sickness. M.M. Fal' (1958) obtained analogous results using typhoid vaccine. Experiments with rabbits and guinea pigs using cytological and bacteriological methods showed the efficiency of aerogenic vaccination (A.I. Maslov (1958), N.I. Alexandrova and N.Ye. Gefen (1958, 1959) which gave rapid high level prolonged immunity, due to its wider

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Aerogenic immunization ...

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effect on the reticulo-endothelial system as compared with intradermal vaccination. From this the authors deduced that an effect should be noted after ionizing radiation. Experiments confirmed this. 65 guinea pigs, weight 450 - 550 gr. were taken. 25 were vaccinated aerogenically and 30 immunized intradermally for comparison. Both sets were divided into two groups, of which one was subjected, five hours before the injection of the vaccine, to radiation of 250r dose from a RUM-3 machine /Abstractor's note: Not described/ at voltage 185 kV, current strength 15 mA, filters 0.5 mm of copper and 1 mm aluminum, air dose strength at the surface of the irradiated animal 21.3 r/min at a focal distance of 45 cm. The second group was not irradiated (immunization control). The third group of ten guinea pigs received a similar radiation dose without subsequent vaccination (radiation control). The degree of radiation sickness was assessed in the normal way. Aerogenic immunization was carried out by placing the animals in an aerosol chamber for 30 minutes, during which a suspension of vaccine of the Brucella strain (Br. abortus bovis 19-BA) was introduced con-

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Aerogenic immunization ...

taining 50 milliards microbe cells per ml (optic standard). During immunization 1.5 ml. of suspension passed through the sprinkler giving an aerosol of 15-30 microns, 300 l. of air. One l. of air contained 14.6 million live Brucellae. Intradermal immunization was by 0.5 milliard doses, corresponding to 1-1.25 milliard live Brucellae. Agglutinins in the experimental animals were measured at immunization and after 1/2, 1 and 3 months. The irradiated guinea pigs, vaccinated aerogenically, developed 3rd and 4th degree radiation sickness and 60 % of the animals died in 8 to 14 days, whilst irradiated controls developed 2nd and 3rd degree radiation sickness with 10 % mortality in 30 days. The main causes of death were severe intestinal haemorrhages, autoinfection and, in two cases, widespread subpleural, interstitial haemorrhages throughout the whole lung with general haemorrhagic oedema. None of the non-irradiated animals which had been aerogenically vaccinated died and dissection at various times after vaccination revealed only hyperplasia of the reticulo-histiocytic elements of the lung and

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Aerogenic immunization ...

other organs and tissues. Guinea pigs irradiated and vaccinated intradermally, developed 2nd and 3rd degree radiation sickness, 10 % dying in 30 days. The haemorrhagic syndrome was markedly less frequent among the latter appearing usually at the vaccination site (G.N. Kriyankov (1959)). The average agglutinin titre for each of the four groups is tabulated. Revaccination was carried out 7 months later with 1/2 the previous doses. Guinea pigs, weight 600-700 gr. were used. 7 had been vaccinated aerogenically, 8 intradermally. 3 and 4 respectively taken from each group and then subjected to revaccination (control of revaccination) or radiation (control of radiation). The remainder were irradiated and five hours later revaccinated in the appropriate way. Agglutinins were determined before revaccination, 1 and 2 weeks after, 1, 1 1/2 and 2 months after. Allergic tests were made before revaccination and 1/2, 1 and 2 months later. The characteristic picture of grave radiation sickness developed among the revaccinated and non-revaccinated and on the eighth day 1 guinea pig, revaccinated intradermally, died from intestinal haemorrhage. The condition of the remainder impro-

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Aerogenic immunization ...

ved by the 21st day and all recovered fully. The average agglutinin titre for both groups is tabulated. One week after aerogenic revaccination a high titre was reached (1:240), exceeding the control level (1:160). Among the intradermally revaccinated it was 1:55. Through all the weeks the agglutinin level among aerogenically vaccinated animals was twice that of both the intradermally revaccinated and the unirradiated and revaccinated. The average initial titre (1:330) included one guinea pig who 7 months after the initial immunization had titre 1:1280. Results of allergy tests are given in Table 3. The authors conclude that among guinea pigs aerogenically immunized with live Brucella vaccine five hours after irradiation with 250r there is an increase in mortality in radiation sickness as compared with intradermally immunized animals and a depression of immunogenesis throughout the period of illness; aerogenic revaccination of irradiated animals does not make radiation sickness worse and from an immunological point of view is two to three times more effective than intradermal reimmunization; during the critical period of the disease and independent of the me-

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Aerogenic immunization ...

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thod of vaccination there is a marked delay in the development of allergy. This is restored more rapidly in aerogenically reimmunized guinea pigs (1 month) than in intradermally reimmunized (2 months) Further research is necessary to find protective doses for initial aerogenic immunization with live Brucella vaccine and to determine the optimum time for providing such immunization before and after radiation. There are 3 tables and 8 Soviet-bloc references. Ab-stractor's note: No references given for any personalities mentioned in text<sup>7</sup>. X

SUBMITTED: October 1960

Card 6/8

KRIYEVIN<sup>1</sup>, A.B. [Krievins, A.B.]

Machine for pressing rectangular tenons. Der.prom. 8 no.1:26  
Ja '59. (MIRA 12:1)

1. Proizvodstvenno-konstruktorskoye byuro Upravleniya bumazhnoy  
i derevoobrabatывayushchey promyshlennosti sovetskoy Latvyskoy  
SSR.

(Woodworking machinery)

KRIYEVIN', A. Ya.

Production of consumer goods from wood waste. Der.prom. 4 no.  
4:29 ap '55. (MLRA 8:6)

1. Glavnyy inzhener proyektno konstruktorskogo byuro tresta  
Latmebel'. (Wood waste)

KRIYEVIN'EN, A.Ya. [Krievins, A.J.], inzh.

New designs of furniture. Der.prom. 7 no.11:25 N '58.

(MIRA 11:11)

1. Proyektno-konstruktorskoye byuro Upravleniya bumazhnoy i derevoobra-  
batyvayushchey promyshlennosti sovmarkhosa Latvyskoy SSR.  
(Furniture)

KRIYEVIN, A.Yu. (Liyepaya)

Use of new psychopharmacological preparations in pediatric  
psychoneurology; survey of foreign works. Zhur. nevr. i  
psikh. 61 no.7:1106-1111 '61. (MIRA 15:6)  
(PSYCHOPHARMACOLOGY) (CHILD PSYCHIATRY)

USSR/Cultivated Plants - Potatoes. Vegetables. Melons. etc.

M.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15643

Author : A. Kriyevinya

Inst : -

Title : The Effect of Several Agrotechnical Methods on the Horse  
Radish Yield.  
(Vliyaniye nekotorykh agrotekhnicheskikh priyemov na  
urozhay khrena).

Orig Pub : Sb. stud. nauchn. -issled. rabot. Latv. s.-kh. akad.,  
1957, vyp. I, 17-26.

Abstract : No abstract.

Card 1/1

FS

USSR/General Biology - General Hydrobiology.

B.

Abs Jour : Ref Zhur - Biol., No 21, 1958, 94720

Author : Nikolayev, I.I., Kriyevs, K.I.K.

Inst : Latvian Department, All-Union Scientific-Research Fishery Department.

Title : Productivity and Conditions of Development of Plankton in the Central Baltic and in the Riga Bay in 1955-1956.

Orig Pub : Tr. Latv. otd. VNIRO, 1957, vyp. 2, 39-81

Abstract : The production dynamics were studied of feeding species of plankton and nektoplankton which are the resource of the most important commercial fishes in the Baltic - Baltic herring and sprat, as well as the significance of the given factors for natural fluctuations in productivity of the fish indicated. The influence is examined on the productivity of plankton of various hydrometeorological

Card 1/2

USSR/General Biology - General Hydrobiology.

B.

Abs Jour : Ref Zhur - Biol., No 21, 1958, 94720

conditions and a developed scheme is given of the biological seasons of the Baltic Sea. The complex of factors is studied which influence the fattening of the Baltic herring and sprat and on the formation of their younger generations.  
-- S.A. Mileyskovskiy

Card 2/2

- 47 -



KRIZ, A.

"Necessity of Ventilation Equipment for Improvement of Industrial Safety and Hygiene."  
p. 215, Praha, Vol. 4, no. 3, Mar. 1954.

SO: East European Accessions List, Vol. 3, No. 9, September 1954, Lib. of Congress

KRIZ, A.

"Devices for the removal of dust in stonecrushing plants."

p. 269 (Nova Technika, No. 6, 1958, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 9, September 1958.

KRIZ, Antonin

Multilingual hydrogeological nomenclature. Geol Průzkum  
5 no.11:345 N '63.

KRIZ, Eman

Development of the Czechoslovak match industry. Drevo 19 no.9:354  
S '64.

1. Solo National Enterprise, Susice.

KRIZ, Eman

New technique of making match tips. Drevo 17 no.7:217 J1 '62.

1. Solo, n.p., Susice.

CZECHOSLOVAKIA

VOJTIK, V., TAUSEK, V., and KRIZ, J., Children's Mental Hospital (Detska psychiatricka lecebna), Oparany.

"A Modified Child Psychiatric Card Index"

Prague, Ceskoslovenska Psychiatrie, Vol LIX, No 3, June 63, pp 159-166.

Abstract [Authors' English summary]: A modification of a card index hitherto employed for the analysis of clinical data recorded in outpatient and inpatient children's mental institutions. By means of this index it is easier to analyze data of previous history, etiology, diagnosis, syndromes, symptoms, and treatment. Its graphic arrangement and other texts are such as to replace both the previously used punch card and case notes. The card is described and instructions are provided on how to use it. It may be used in departments of adult psychiatry. Eighteen references, including 14 Czech.

1/1

CZECHOSLOVAKIA

KRIZ, J; BENES, M.J; PESKA, J

Institute of Macromolecular Chemistry, Czechoslovak Academy of Sciences, Prague - (for all)

Prague, Collection of Czechoslovak Chemical Communications, No 1, January 1967, pp 398-409

"On the production and reaction of acetylenides in dimethyl sulfoxide."

KRIZ, Jan

On the documents of the 12th Congress of the Communist Party of  
Czechoslovakia. Drevo 17 no.8:233 Ag '62.

1. Ustredni vybor Komunisticke strany Ceskoslovenska.

VOJTIK, V.; TAUSEK, V.; KRIZ, J.

A modified card index in child psychiatry. Cesk. psychiat.  
59 no.3:159-166 Jo '63.

1. Detska psychiatricka lecebná v Opatovanech.  
(CHILD PSYCHIATRY) (MEDICAL RECORDS)  
(PUNCHED-CARD SYSTEMS)



KRIZ, J.

"Collective contracts, a fighting task of the trade-unions."

p. 21 (Kozarstvi) Vol. 6, no. 2, Feb. 1956.  
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

KRIZ, J.

Collective contracts assure convenient working conditions for our workers. p.29  
(Kozarstvi, Vol. 7, no. 2, Feb. 1957) Praha

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6 no. 7 July 1957. Uncl.

KRIZ, J.

Resolution of the 1st Trade-Union Congress: to organize the masses for new tasks. p.57  
(Kozarstvi, Vol.7, no. 3 Mar. 1957) Praha

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6 no. 7, July 1957. Uncl.

KRIZ, J.

40th anniversary of the Great October Revolution. p. 149. (KOZARSTVI,  
Vol. 7, No. 6, June 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

KRIZ, J.

Ensuring suitable conditions for our workers by collective contracts. p.41  
(Textil, Vol. 12, No. 2, Feb. 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 9, Sept. 1957. Uncl.

KRIZ, J.

Honoring the 40th anniversary of the Great October Revolution.

P. 201, (Textil) Vol. 12, no. 6, June 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) Vol. 6, No. 11 November 1957

L 29949-66

ACC NR: AP6006150

(A)

SOURCE CODE: CZ/0078/65/000/010/0010/0010

AUTHOR: Huss, Vaclav (Dr., engineer, Doctor of Sciences) (Pecky); Bydzovsky, J. (Engineer) (Zasmuky); Cerny, L. (Engineer) (Sadka); Kriz, J. (Prague); Ladnar, J. (Prague)

ORG: None

TITLE: (Overvoltage protection device for rectifying semiconductor diode)  
CZ Pat. No. PV 7039 64

SOURCE: Vynalezy, no. 10, 1965, 10

TOPIC TAGS: semiconductor device, semiconductor diode, Zener diode, zener effect

ABSTRACT: A device is described for protecting a rectifying semiconductor diode, or a group of several parallel or series-parallel connected diodes from overvoltage, and is distinguished by the feature that to the diode of group of diodes is connected a parallel matched polarized breakdown (Zener) diode, or a group of several breakdown diodes connected in series, in parallel or in series-parallel. The Zener voltage on the breakdown diode in the reverse (non-conducting) direction, or the value of the sum of the Zener voltages in the reverse direction in the breakdown diodes connected in series is lower than the breakdown voltage of the diode to be

Card 1/2

L 29949-66

ACC NR: AP6006150

protected from overvoltage, or than the value of the sum of the breakdown voltages of the protected diodes connected in series.

SUB CODE: 09. SUBM DATE: 14Dec64

Card 2/2 CC



~~BLUM, Frideta [Blum, Friedeta]; KRZIHAN, Jan [Kříž, Jan].~~

Effect of the days length on the development and morphogenesis  
of wheat spikes [with English summary in insert]. Fiziol.rast.  
3 no.5:414-422 S-O '56. (MLRA 9:12)

1. Biologicheskii institut Chekhoslovatskoy Akademii nauk,  
Praga 6, na TSvichishti, 2.  
(Photoperiodism) (Wheat)

CZECHOSLOVAKIA/Plant. Physiology - Mineral Nutrition.

I

Abs Jour : Ref Zhur Biol., No 12, 1958, 53327

Author : Seidlova-Dlumova Frideta, Kriz, Jan

Inst : -

Title : Influence of the Length of the Day on Development and Morphogenesis of Wheat Spikes

Orig Pub : Ceskosl. biol., 1956, 5, No 4, 227-235

Abstract : Experiments were conducted with summer wheat of the Niva variety in 1955 by the experimental sections of the Biological Division of Czechoslovakian Academy of Sciences in Prague (Dejvice). Plants were cultivated for a period of 2-52 normal days and then for short days (8 hours). Micromorphological analysis of the apical cones and a study of the mature spikes showed that in the period of differentiation the states of the apical cones were not the same. A short day effect produced a change in the structure of the spike (enhancement of the number of

Card 1/2

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CZECHOSLOVAKIA/Plant Physiology - Mineral Nutrition.

I

Abs Jour : Ref Zhur Biol., No 12, 1958, 53327

spikes, branching, and proliferation). The nature of the changes depends on the stage of aging (and in connection with this on the phase of development of the apical cones) during the active period of the short day.  
-- I.P. Delokon'

Card 2/2

KRIZ, J.

CZECHOSLOVAKIA / General and Specialized Insects. P  
Insect and Mite Pests.

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 44867

Author : Kriz, J.

Inst : Czechoslovak Academy of Agricultural Science

Title : The Potato Cutworm as a Hops Pest in 1955.

Orig Pub : Sbor., Ceskosl. akad. zemedved. Rostl vyroba,  
1956, 29, No. 11, 1163-1174

Abstract : In 1954-55, the hops crop in Czechoslovakia decreased 10-40% as a result of damage to the sprouts and branches by larvae of the potato cutworm *Hydroecia micacea*. Problems of the damage by potato cutworm in hop growing regions were discussed and measures were worked out to destroy the distribution centers and to prevent the reappearance of the cutworm.

Card 1/1

CZECHOSLOVAKIA/Virology - Viruses of Plants.

E

Abs Jour : Ref Zhur Biol., No 6, 1959, 23798

Author : Kriz, Jan

Inst : -

Title : On the Spreading of Viruses in the Sprouts and Branches  
of Hops.

Orig Pub : Chmelarstvi, 1958, 31, No 7, 109-110

Abstract : No abstract.

Card 1/1

- 8 -

KRIZ, Jaroslav

Palletization of paper industry products. Papir a celuloza  
18 no.11:228 N'63.

1. Odbytove sdruzeni Papirenskeho prumyslu.

KRIZ, J.

Effect of testosterone propionate in cancer of female  
sex organs. Lek. listy 5 no.18:543-545 15 Sept. 1950.

(CML 20:1)

1. Of the First Obstetrical and Gynecological Clinic,  
Masaryk University in Brno (Head--Prof. L. Havlasek, M. D.).

KRIZ, J.

Nitrogen mustard therapy of female genital cancer. Lek.  
listy 5 no.20:602-604 15 Oct. 1950. (CJML 20:1)

1. Of the First Obstetrical and Gynecological Clinic, Masaryk  
University in Brno (Head--Prof. L. Havlasek, M. D.)

KRIZ, J.

Treatment of placenta praevia in obstetric and gynecologic clinic  
in Brno, 1936-1948. Cas. lek. cesk. 89 no.49:1376-1379 8 Dec 50.

(CLML 20:4)

1. Of the First Obstetrical and Gynecological Clinic of Masaryk University in Brno (Head--Prof. L. Havasek, M.D.).



KRIZ, Jaroslav, MUDr.

Early diagnosis of cancer of the cervix uteri. Cas. lek. cesk.  
94 no.49:1353-1358 2 Dec 55.

1. I. porodnicka a gynekologicka klinika Masarykovy university  
v Brne, prednosta prof. MUDr. L. Havlasck.  
(CERVIX, UTERINE, neoplasms,  
diag., early)

KRIZ, Jaroslav, MUDr.

Histochemical examination of alkaline phosphatase in female genital tumors. Cesk. gyn. 21 no.5:361-368 Nov 56.

1. I. por. gyn. klin. M.U. v Brne, prednosta prof. MUDr.  
Ludvik Havlasek.

(GENITALIA, FEMALE, neoplasms

alkaline blood phosphatase, histochem. (Cz))

(PHOSPHATASES, in blood

alkaline, in cancer of female genitalia, histochem. (Cz))

KRIZ, J.

~~CZECHOSLOVAKIA~~/General Problems of Pathology - Tumors.

T-5

Abs Jour : Ref Zhur - Biol., No 4, 1958, 17318

Author : Kriz, J.

Inst :

Title : Alkaline Phosphatase in Tumors of Female Reproductive Organs. Histochemical Study.

Orig Pub : Ceskosl. gynaekol., 1956, 21, No 6, 361-368

Abstract : Alkaline phosphatase is detected histochemically in metaplastic epithelium of the cervix and in the cells of inflammatory infiltrate. In myomas, alkaline phosphatase gives a positive reaction in the vascular endothelium but reacts more weakly in the nuclei of tumor cells. In the parenchyma of squamous and spindle-cell cancer of the cervix there is less alkaline phosphatase than in the stroma whereas this picture is reversed in adenocarcinoma of the body of the uterus. These differences are believed to be associated with the biochemical peculiarities of tumors.

C. Card 1/2

138000826610

KRIZ, Jaroslav, MUDr.

Surgical treatment of inflammation of uterine adnexae.  
Cesk. gyn. 21-35 no.2:95-100 Mar 56.

1. I gyn. k. MU v Brne, prednosta prof. MUDr. L. Havlasek.  
(ADNEKA UTERI, dis.  
inflamm., surg.

KRIZ, Jaroslav, MUDr. (Brno, Stalingradske nam. 15.)

Surgery or radiotherapy of cervical cancer? Cesk. gyn. 23 [37] no.3:  
204-210 Apr 58.

1. I. por. gyn. klinika MU v Brne, prednosta prof. Dr. L. Havlasek.  
(CERVIX NEOPLASMS, ther.  
radiother., indic. (Cs))  
(CERVIX NEOPLASMS, surg.  
indic. (Cs))

SIKL, Oldrich, MUDr.; KRIZ, Jaroslav, MUDr.

Treatment of premenopausal & menopausal hemorrhage by radium therapy.  
Cesk. gyn. 23[37] no.3:210-215 Apr 58.

1. I. gyn. klinika MU v Brna, prednosta prof. Dr. Ludvik Havlasek.

O. S., I. gyn. klin. MU, Brno.

(CLIMACTERIC, FEMALE, compl.

hemorrh., menopausal & preclimacteric, radium ther. (Cz))

(RADIUM, ther. use

preclimacteric & menopausal hemorrh. (Cz))

KRIZ, Jaroslav; HAVLICEK, Jaromir; CENK, Milos

Injections of absolute ethyl alcohol into the spinal canal, as described by Dogliotti, to alleviate pain caused by malignant tumors of the female genitalia. Cesk. gyn. 23[37] no.5:390-392 July 58.

1. I. por. gyn/ klin. MU v Brne, prednosta prof. Dr. L. Havlasak.  
J. K., I. por. gyn. klin., Brno.

(GENITALIA, FEMALE, neoplasms

incurable, pain ther. by ethyl alcohol inject. into spinal canal (Cs))

(PAIN, therapy

ethyl alcohol inject. into spinal canal for pain in incurable tumors of female genitalia (Cs))

(ALCOHOL, ETHYL, therapeutic use

pain in incurable tumors of female genitalia. (Cs))

KRIZ, J.

Remarks on the article by Dr. O. Stolova: "The concept of gynecology and obstetrics". Cesk. gynek. 29 no.1:142-143 F'64

\*



MIKHA, Jiri; KRIZ, Jiri

Pharmacological relaxation of the muscles in relation to personal experiences with procuran. Rozhl. chir. 36 no.2:73-81 Feb 57.

1. I. chirurgická klinika KU, pobočka v Písní, přednáška doc. Dr. K. Domanský II. chirurgická klinika KU, pobočka v Písní, přednáška doc. Dr. J. Svínka.

(DECAETHONIUM COMPOUNDS, eff.

decamethonium iodide on musc. (Cz))

(MUSCLES, physiol.

eff. of decamethonium iodide (Cz))

KRIZ, J.

The role of research on rock pressure and the possibilities of its measurement in ore mines. p. 3. (Rudy, Vol. 5, No. 1, Jan 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957.Uncl.

KRIZ, Jiri

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: /not given/

Affiliation: /not given/

Source: Prague, Casopis pro Mineralogii a Geologii, Vol VI, No 2, 1961,  
pp 173-178.

Data: "The Destroyed Paleontologic Locality of Joachim Barrande called  
by Him "Butowitz."

$$K_A I \dot{z} = J$$

- [illegible]

KRIZ, Josef, inz., CSc.

From the activities of the Hop Research Institute. Vest ust  
zemedel 10 no.10/11:391-399 '63.

1. Vyzkumny ustav chmelarsky, Zatec.

KRIZ, Josef, inz.; TAIMR, Lubomir, inz.

Use of economical sprays for the control of the hop louse  
and the hop red spider. Rostlin vyroba 9 no.1:89-106 Ja '63.

1. Vyzkumny ustav chmelarsky, Zatec (for Kris). 2. Ustredni  
vyzkumny ustav rostlinne vyroby, Rusyne (for Taimr).

POZDENA, Jiri, inz., C.Sc.; CECH, Milan, inz., C.Sc.; KRIZ, Josef, inz.

Effect of heating on the activity of the hop infectious  
sterility virus. Rostlin vyroba 9 no.1:85-88 Ja '63.

1. Ustav experimentalni botaniky, oddleni fytopatologie,  
Praha (for Pozdena and Cezh). 2. Vyzkumny ustav chmelarsky,  
Zatec (for Kriz).

FALTYS, Josef; Kriz, Josef

Principles of the organization of heavy machinery production  
units. Pod org 17 no.7:293-296 JI '63.

1. Technickoorganizacni vyzkumny ustav strojirensky (for Faltys).
2. Ministerstvo tezkeho strojirenstvi (for Kriz)



PECHATY, Karel, inz.; KRIZ, Josef

Adjustment of tools removed from a machine. Stroj vyr 12  
no.4:248-251 Ap'64.

1. Research Institute of Machine Tools and Machining, Prague.

KRIZ, Josef

End milling cutters and milling heads with exchangeable tips.  
Stroj vyr 12 no. 5:333-335 My '64.

1. Research Institute of Machine Tools and Machining, Prague.

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**APPROVED FOR RELEASE: 06/14/2000**

**CIA-RDP86-00513R000826610016-1"**

CZECHOSLOVAKIA/Electronics - Photocells and Semiconductor Device H.

Abs Jour : Ref Zhur- Fizika, No 7, 1959, 15951

Author : Cihelka, J., Cerny, L., Husa, V., Kriz, J., Ladnar, J.

Inst : State Research Institute for Electric Power Engineering  
Prague, Czechoslovakia

Title : New Technology of Manufacture of High Power Germanium  
Diodes

Orig Pub : Slaboproudy obzor, 1958, 19, No 9, 589-592

Abstract : A feature of the described technology is simultaneous  
carrying out of the processes of production of p-n  
junctions and the soldering of the leads.

Card 1/1

- 93 -

KRIZ, J.

CZECHOSLOVAKIA/Electronics - Photo cells and Semiconductor Device.

H

Abs Jour : Ref Zhur Fizika, No 1, 1960, 1551

Author : Husa, V., Kriz, J., Ladnar, J.

Inst : -

Title : p\* -- p -- n\* Junctions in Silicon

Orig Pub : Slaboproudy obzor, 1959, 20, No 5, 284-287

Abstract : The author considers the physical basis of the p\* --  
i -- n\* junction and justifies the choice p\* -- p --  
n\* junction for use in a silicon diode. The techno-  
logy of manufacture of diodes with large junction  
surface and with reverse voltage greater than 1,000  
volts is considered. Conditions are determined for  
obtaining sufficiently small resistance in the for-  
ward direction.

Card 1/1

CZECHOSLOVAKIA/Electricity - Semiconductors.

G

Abs Jour : Ref Zhur Fizika, No 4, 1960, 9087

Author : Cerny Ladislav, Husa Vaclav, Kriz Josef, Ladmar Josef

Inst : -

Title : The p-n Junction in Germanium

Orig Pub : Electrotech. obzor, 1959, 48, No 8, 406-409

Abstract : A brief description of the physical principle of the p-n junction in germanium, and a comparison of the theoretical premises with the experimental data. Problems of technology are considered, and certain results of experimental investigation of the p-n junction are given. A technology is recommended, which insures small dispersion of the characteristic in the forward and backward directions.  
See Referat Zhur Fizika, 1960, No 3, 6618.

Card 1/1

38197

S/058/62/000/004/160/160

A061/A101

9.4340

AUTHORS: Husa, V., Kříž, J., Ladnar, J.

TITLE: Production technique for silicon semiconductor diodes

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 24, abstract 4-4-47v P  
(Chekhosl. pat. kl. 21 g, 11/02, no. 97215, 15.11.60)

TEXT: The production technique suggested for silicon alloys designed for semiconductor power diodes is characterized by the fact that the pickling agent, consisting of 1 part of concentrated  $\text{HNO}_3$  and 3 parts of concentrated  $\text{HCl}$ , is applied to the contact surface of a fused-in gold electrode and a silicon plate. After washing with distilled water, the completion of manufacturing semiconductor diodes is continued with the conventional technical processes. By the new method, the electrical properties of semiconductor diodes are improved significantly without any substantial increase of manufacturing costs.

A. S.

[Abstracter's note: Complete translation]

Card 1/1

S/194/62/000/004/076/105  
D295/D308

AUTHORS: Cihelka, Jaroslav, Cerný, Ladislav, Husa, Václav,  
Kříž, Josef and Ladnar, Josef

TITLE: Device for the stabilization of the operation of semi-  
conductor-rectifier sections connected in parallel  
(Patent)

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,  
no. 4, 1962, abstract 4-5-56f (Czechosl. pat., cl.  
21d2, 12/02; 21g, 11/02; 21d3, 2, no. 97375, 15.11.60)

TEXT: The principle of the distribution of the cooling medium in  
rectifiers with parallel-connected semiconductor diodes is outli-  
ned. When diodes are connected in series or in parallel, the pro-  
blem of temperature stability is especially difficult, since it is  
impossible in practice to choose diodes having exactly the same  
characteristics and, in particular, the same temperature dependence  
on the current-voltage characteristic, which would enable us to  
use for them a common equipment for cooling or temperature regula-

Card 1/2



Device for the ...

S/194/62/000/004/076/105  
D295/D308

tion. It is suggested in this connexion to use individual cooling of each diode, which eliminates the need of their selection. The cooling medium is fed from a common reservoir to each diode via distribution valves regulated by means of special equipment. The regulating action of the latter is based on utilizing the temperature dependence of the current passing through the diode. [Abstracter's note: Complete translation.]

Card 2/2

9.4340

39617  
S/194/62/000/004/047/105  
D201/D308

AUTHOR: Husa, Václav, Kříž, Josef and Ladnar, Josef

TITLE: A silicon diode

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,  
no. 4, 1962, abstract 4-4-46v (Czechosl. pat., cl.  
21g, 11/02, no. 97461, 15.11.60)

TEXT: The author proposes a construction of diodes, in which the whisker contact, making the hermetic sealing of the diode difficult, is dispensed with. In the usual systems the whisker is inside the space to be sealed off. In the given constructions (see Fig.) the hermetic ceramic cartridge 3 contains only the silicon rectifying element 2. The bottom of the cartridge is formed by a copper plate 1 which acts as the lower contact to the rectifier and the upper section consists of a metal cylinder 5, the bottom of which is used as the second contact; external lead 4 is inserted in the upper cylinder. [Abstracter's note: Complete translation.]

Card 1/2

9.4300 (1035, 1138, 1143)

84116

Z/017/60/049/011/011/013  
E073/E535

AUTHORS: Husa, Václav, Engineer Doctor, Cihelka, Jaroslav,  
Engineer and Kriz, Josef

TITLE: Influence of the Ambient Atmosphere on the Surface  
Conductivity of Silicon ↑

PERIODICAL: Elektrotechnický obzor, 1960, Vol.49, No.11, pp.596-600

TEXT: The paper presents a description of the measuring methods applied in the investigation of the influence of the external atmosphere upon the surface conductivity of silicon of the types p and n. The influence of moist nitrogen and dry oxygen was experimentally investigated. A sketch of the test-rig is shown in Fig.1. During the tests the temperature was maintained at 20°C. At first, nitrogen with increasing moisture content was fed in until the nitrogen had a 100% relative humidity. This was followed by feeding in dry oxygen so that the relative humidity dropped slowly to 30%. Following that, the cycle was repeated. It was found that the duration of the cycle did not affect the results. The inverse current increases with increasing relative humidity above 50%.

Card 1/3

84116  
Z/017/60/049/011/011/013  
EO73/E535

Influence of the Ambient Atmosphere on the Surface Conductivity of Silicon

At the instant of feeding in oxygen there was a steep increase in the inverse current. With increasing humidity the conductivity has a minimum at about 50% humidity, whilst the presence of oxygen brings about an increase in the surface conductivity. In the case of n-type junctions, the surface conductivity increases monotonously with humidity without there being a minimum and with increasing oxygen content the surface conductivity decreases. A physical interpretation of the phenomena is given. Humidity represented by the OH group acts to the outside as a dipole with a positive charge so that it attracts surface electrons and intensifies type n conductivity. On the other hand, in the case of type p it repulses the free holes and, as a result of that, the surface concentration of the holes decreases. The oxygen has an electro-negative effect: it repulses free electrons on type n junctions, i.e. it weakens type n junctions, and it attracts holes in the case of type p junctions, i.e. it intensifies the type p junctions. On the basis of the obtained results

Card 2/3

X